Discussion

The applicant acknowledges the examiner's statement that, as examined, Claims 1 to 20 were pending in the application.

Amendments to the Disclosure

The amendments being made to the disclosure are apparent from Schedule B. These amendments are generally in the nature of clarifications of the original intent of the text of the disclosure, as well as grammatical and spelling corrections. No new matter is being added.

Amendments to the Claims

The amendments being made to the claims are apparent from Schedule A. These amendments are generally in the nature of clarifications of the original intent of such claims. No new matter is being added.

Examiner Objections to Claims 18, 19 under 35 USC 112

The examiner has objected to Claims 18 and 19 under 35 USC 112 on the basis that the subject matter of these claims was not described in the specification in an enabling manner. The examiner observes that the claims are drawn to a wall panel system including an integral footing with which the flanges connect but states that the drawing and specifications are not enabling as to how the positioning plate structurally relates to the claimed wall system.

Claims 18 and 19 provide as follows:

> 18. (Original) A building wall system as in claim 17 comprising at least one positioning plate with upwardly bent flanges for positioning beneath said corner piece, said flanges embracing portions of the base ends of said respective abutting wall panels.
>
> 19. (Original) A building wall system as in claim 15 comprising at least one positioning plate with upwardly bent flanges for positioning beneath said wall panels, said flanges embracing portions of the respective base ends of two of said wall panels.

The positioning plate as shown in Figures 12 and 13 sits beneath the corner piece of Figure 11. It will be seen that the shape of the region 40, as shown in Figure 12 corresponds to and will therefore underlie the corner piece 38, as shown in Figure 11. Further, the side portions of the plate extend outwardly to fit under the base ends of adjacent wall portions. The specification provides:

Under the Summary of the Invention

Vertical corners for an outside corner may also be created through provision of a pre-cast corner piece shaped to receive the abutting vertical edges of adjacent wall panels. Sheet metal positioning plates with a horizontal surface bounded by upwardly bent flanges may be positioned beneath and optionally on top of the corner piece and immediately adjacent the walls of the abutting panels, embracing both the corner bottom ends of the two walls. The two half-flange forms of the adjacent wall panels may then be joined by a joiner piece such as an angled strip, by sheet-metal screws or other appropriate fastening means. This provides a vertical cavity that communicates with the upper trough volume and can be filled with concrete grout. This vertical cavity may also communicate with the footing volume.

Similar, small"U"-shaped sheet metal plates may be placed beneath and above the bottom and top edges of adjoining wall panels where they meet. These plates provide alignment for the wall panels and assist in shimming the panels, if necessary, by providing a firm base surface for shims.

Under the Description of the Preferred Embodiment

An alternate treatment for an outside, vertical corner can be based on provision of a pre-cast corner piece 38 as shown in Figure 11. This corner piece 38 is shaped to receive the abutting vertical edges 26 of adjacent wall panels 1. Sheet metal positioning plates 39, Figure 12, with a horizontal surface 40 defined and bounded by upwardly bent flanges 41 may be positioned beneath and on top of the corner piece. The flanges extend to and embrace the immediately adjacent walls 1 of the abutting panels. With these positioning plates 39 installed, the corner piece 38 is held precisely in the correct position with respect to the adjacent wall panels 1.

The key references here are to:

Sheet metal positioning plates with a horizontal surface bounded by upwardly bent flanges may be positioned beneath and optionally on top of the corner piece and immediately adjacent the walls of the abutting panels, embracing both the corner bottom ends of the two walls.

and

"Sheet metal positioning plates 39, Figure 12, with a horizontal surface 40 defined and bounded by upwardly bent flanges 41 may be positioned beneath and on top of the corner piece."

These sentences, together with the other portions of the above description and the figures, make it clear how this plate functions. It is submitted that the examiner cannot make a 35 USC 112 objection against Claims 18 and 19.

Examiner's Objections under 35 USC 102(b)

Claim 1

The examiner has objected to Claims 1-6, 8-10, 13-15 as being anticipated by Desjoyaux et al US 5,111,628. In referring to Desjoyaux et al the examiner has asserted that this reference includes, as recited in Claim 1:

"b) a footing form (generally at the bottom of the form) fitted along the wall portion proximate to the base end of the wall panel to provide a downwardly open footing volume, wherein *said vertical flange form and footing form define interconnected volumes* and wherein said *forms serve to contain binder material* poured into the footing form through the vertical flange form *to provide said wall portion with both a flange and a footing,* and wherein the *footing form of the panel extends along the base end of the panel for the width of the panel* to *provide a continuous footing volume* whereby the footing form can be filled with a continuous volume of binder material that serves as the footing along the base end of the panel."

In making this statement, the examiner references Figures 3-7 of Desjoyaux.

The applicant contests the examiner's allegation that this reference meets the limitations shown in italics above. The volume of the flange form in Desjoyaux does not interconnect with a downwardly open footing volume at the base of the Desjoyaux wall panel. This is apparent in Figures 3, 7 and 14; the flange volume in Desjoyaux is displaced from alignment with any possible footing form volume. There is a vertical flange volume in Desjoyaux but it does not interconnect with a downwardly open footing volume provided by a footing form. There is no footing form in Desjoyaux which will contain binder material poured into the footing form through the vertical flange form.

Desjoyaux does not contemplate forming a footing across the width of the panel by filling a footing form with binder material poured into the footing form through the vertical flange form. There is no footing form in Desjoyaux positioned to contain binder material poured into the footing form in order to create a footing. The structure at the bottom of the Desjoyaux panel will not contain binder material.

Additionally, Claim 1 has been amended in the following respect:

b) a footing form fitted along the wall portion proximate to **but displaced horizontally** from the base end of the wall panel to provide a downwardly open footing volume,

This feature further distinguishes Claim 1 from Desjoyaux.

Accordingly, it is submitted that a 35 USC 102(b) rejection is not appropriate. Neither would a rejection under 35 USC 103 be appropriate. There is no suggestion in Desjoyaux that it would be advantageous to create a footing extending the width of the panel by pouring binder

material into a flange form volume. Nor is there is a suggestion in Desjoyaux that it would be advantageous for the volume of the flange form to interconnect with a downwardly open footing form adjacent to but displaced horizontally from the base of the Desjoyaux wall panel.

Dependent claims

Other claims referring-back to Claim 1 in dependent form, apart from the other limitations which they add, are similarly novel and non-obvious. The presence of further limitations in the dependent claims remove such claims even further from any objection that such claims cover obvious variants on Desjoyaux.

Claims 3-5

The examiner has alleged with respect to Claims 3-5 that Desjoyaux provides a wall panel as in Claim 1 which includes *reinforcing coupling means protruding from the wall portion into any one or more of the flange, footing or trough volumes* and supporting reinforcing rod present within such volumes, citing Figures 4, 7. A careful review of Desjoyaux and particularly Figures 4, 7 will show that there is no indication of any elements that meet the language of the italicized words, above. Reinforcing is shown within the wall panel itself, and within the trough volumes, but no reinforcing coupling means extends between the wall portion and one or more of the flange, footing or trough volumes, much less to support reinforcing rod present within such volumes.

Claim 6

The examiner has alleged with respect Claim 6 that the item marked "A" in Figure 7 of Desjoyaux depicts a flange-to-footing coupling means extending between the flange form volume and the footing volume. Desjoyaux states in the first paragraphs directly following the title for the description of the preferred embodiments as follows:

> "The panel according to the invention is made up of a prefabricated structure (1) made of resin reinforced concrete. One of the sides of the structure (1) has, throughout its height, at least one vertical reinforcing component described as (E). In order for this structure to be executed, a reinforcement (A) is arranged at the bottom of a mould and the resin concrete is injected. As FIGS. 4 and 5 show in particular, the reinforcement (A) is embedded into the thickness of the resin concrete structure (1).
>
> "The reinforcement (A) can be made, in the known manner, by interlacing vertical and horizontal bars. In another form of embodiment, the reinforcement can be made by means of a cardboard, corrugated cardboard in particular or suchlike material."

Clearly, element "A" is embedded in the wall panel. There's no suggestion that element "A" serves as a flange-to-footing coupling means extending between the flange form volume and the footing volume as stipulated in Claim 6.

Claim 8

The examiner has alleged with respect Claim 8 that Figures 1-3 of Desjoyaux depict "*a footing form* which has *an outer edge remote from said wall portion* which outer edge is *positioned beneath* (amended to: "at a lower level, below") the base of the wall portion when the wall portion is suspended in a vertical plane, said *footing form being made of a resilient material* that will *allow the outer edge to become aligned with the base end of the wall portion* when the preformed wall panel is placed on a horizontal surface."

The applicant is unable to locate in Figures 1-3 of Desjoyaux any of the features highlighted in italics, above. It is submitted that such features are not depicted in Desjoyaux.

Claim 9

The examiner has alleged with respect Claim 9 that Figures 1-3 of Desjoyaux depict a "*footing form (which) is bent inwardly along said outer edge, extending into the footing volume* and *directed towards the wall portion.*" The applicant is unable to locate in Figures 1-3 of Desjoyaux any of the features highlighted in italics, above. It is submitted that such features are not depicted in Desjoyaux.

Claim 10

The examiner has alleged with respect Claim 10 that Figures 1-3 of Desjoyaux depict a footing form within the limitations of Claim 9 which "has a terminal edge which is positioned within the footing volume so as to be cast into the binder material of a footing when the footing form is filled with binder material to become coupled to the binder material." As claimed in Claim 9 which stipulates for footing form which is bent inwardly towards the wall portion. It is the submission of the applicant that there is no such feature depicted in Desjoyaux.

Claim 13

The examiner has alleged with respect Claim 13 that columns 3-4 of Desjoyaux described the preformed wall panel with all the limitations of Claim 1 plus the feature that: "the material for the flange and footing forms is of sheet material which is fastened by embedment to the panel wall portion of edges of the sheet material which edges are interrupted from alignment in a straight line so as to reduce the tendency for cracks to proliferate in the wall portion." It is the submission of the applicant that such a description does not appear in the referenced document

Claim 14

The examiner has alleged with respect Claim 14 that, generally within the figures of Desjoyaux there is described a preformed wall panel with all the limitations of Claim 1 plus the feature of: "a beam support post form (generally at 2d) fitted to said wall portion, said beam support post form being notched at its upper end, below the top end of the wall panel, to receive

the end of a beam, and providing an upwardly extending open volume adjacent said wall panel for receiving binder material." It is the submission of the applicant that Desjoyaux provides no disclosure for supporting a beam. Further, the reference 2d identified by the examiner is not notched "to receive the end of a beam". It is an opening in the side wall of the upper trough mold to permit a concrete key-way to extend outwardly from the final wall, forming part of a poolside pathway. The configuration in Desjoyaux in this respect is not described by Claim 14.

Claim 15

The examiner has alleged with respect Claim 15 that, in columns 3-5 and Figure 6 Desjoyaux describes a a plurality of panels as in claim 1 plus the feature that "the footing forms of the respective panels are aligned to provide against said base surface a *series of continuous, interconnected footing volumes* extending between consecutive footing forms of each panel whereby *the footing forms can be filled with a continuous volume of binder material that serves as the footing for the wall.*" Desjoyaux does not provide the italicized features because Desjoyaux does not provide a footing form with a downwardly open footing volume. Certainly, Figure 6 does not depict such a feature, and the applicant cannot find where such a feature is described in columns 3-5. As stated previously above, there is no footing form in Desjoyaux positioned to contain binder material poured into the footing form in order to create a footing.

Examiner's Objections under 35 USC 103

Claims 1, 12, 15, 17 and 20

The examiner has objected to Claims 1, 12, 15, 17 and 20 as being obvious over House et al US 5,588,786 in view of Desjoyaux et al. In referring to House et al the examiner has asserted that this reference includes, as recited in Claim 1:

> A preformed wall panel having base and top ends and two vertical side edges, comprising:
>
> a) a wall portion having a width and height fitted with a vertical flange form with an interior flange volume (as seen in the figures; i.e. 30, 38 as seen in figure 2) for creating a flange on the wall portion when filled with binder material; and further comprising
> two wall sections meeting at an angle and further comprising a corner piece having vertical faces shaped to abut the vertical side edges of adjacent wall panels of said respective wall sections, said adjacent wall panels having vertical half-forms mounted along said abutting vertical side edges and further comprising
> a joiner piece for joining said respective half-forms (as seen in figures 1-8); and further where said wall panels are for serving as the first tier in a multiple-tiered wall, *in combination with a second building wall as in claim 15 to form a second tier* for said multiple tiered wall, said *second building wall being positioned on top of said first building wall.*".

This analysis ignores the presence in Claim 1 of the further features:

b) a footing form fitted along the wall portion proximate to the base end of the wall panel to provide a downwardly open footing volume,

wherein said vertical flange form and footing form define interconnected volumes and wherein said forms serve to contain binder material poured into the footing form through the vertical flange form to provide said wall portion with both a flange and a footing, and wherein the footing form of the panel extends along the base end of the panel for the width of the panel to provide a continuous footing volume whereby the footing form can be filled with a continuous volume of binder material that serves as the footing along the base end of the panel.

As described above, these features are not present in either of these two references for the reasons previously given. With these further features present in the claimed combinations, features not present in either of these references, it cannot be said that the total configurations of any one of Claims 1, 12, 15, 17 and 20 would have been obvious. Additionally, there is no reference in either House or Desjoyaux of the italicized portions of the excerpt quoted from the examiner's office action, above.

Claim 16

The examiner has objected to Claim 16 as being obvious over House et al US 5,588,786 in view of Desjoyaux et al and to further US patents 6,332,599 and 6,244,005. The examiner has acknowledged that neither House or Desjoyaux expressly disclose the panel comprising reinforcing means laid in the interconnected footing volumes before they are filled with binder material to become embedded therein once the forms are filled with binder material. The examiner, however, states that it is notoriously common and well-known to provide reinforcing within the footing, citing the US patent references 6,332,599 and 6,244,005. However the footing forms in these references are not being fed with binder material poured down the vertical flange form and flowing into the footing volume by reason of the inter-connected character of the flange form volume and the footing volume. The total combination, including the limitations of earlier claims, is so far removed as to render the combination is being claimed on obvious.

Claim 7

The examiner has objected to Claim 7 as being obvious over Desjoyaux in view of Wallin, 6,244,005 and Palmer 2,200,636. Palmer addresses setting a steel wall into a concrete base which is a different art. In all events, Claim 7 is dependent from Claim 6, 5, 4, 3 and 1. By reason of the distinctions and patentable character of these claims as referred to early, Claim 7 is equally unobvious and patentable.

Claim 11

The examiner has objected to Claim 11 as being obvious over Desjoyaux, asserting that Desjoyaux discloses the wall panel as in Claim 9 but not a terminal edge that is an upwardly directed bent edge. It is submitted the Desjoyaux does not include the limitations of Claims 9, 8

and 1 as referenced earlier, above. Further, in Desjoyaux the edge at the bottom of the wall panel is not directed towards the wall panel. And, Desjoyaux lacks the feature of a footing form where the: "footing form has an outer edge remote from said wall portion which outer edge is positioned ~~beneath~~ **at a lower level below** the base of the wall portion when the wall portion is suspended in a vertical plane, said footing form being made of a resilient material that will allow the outer edge to become aligned with the base end of the wall portion when the preformed wall panel is placed on a horizontal surface (Claim 8)" and "wherein the footing form is bent inwardly along said outer edge, extending into the footing volume and directed towards the wall portion.(claim 9)"

Collectively, with all of these distinctions, that cannot be said that Claim 11 is directed to obvious subject matter.

The examiner says that she would allow Claims 18 and 19, but has objected that Claims 18 and 19 are not supported to the level of enablement, as required by 35 USC 112. This objection has been addressed earlier, above.

Conclusion

It is believed that all of the examiner 's objections have been addressed. The applicant has shown that the claims as now presented are both novel and unobvious in view of the prior art accordingly, the applicant requests reconsideration by the examiner and a favorable ruling which will allow this application to advanced patent

Respectfully submitted,

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